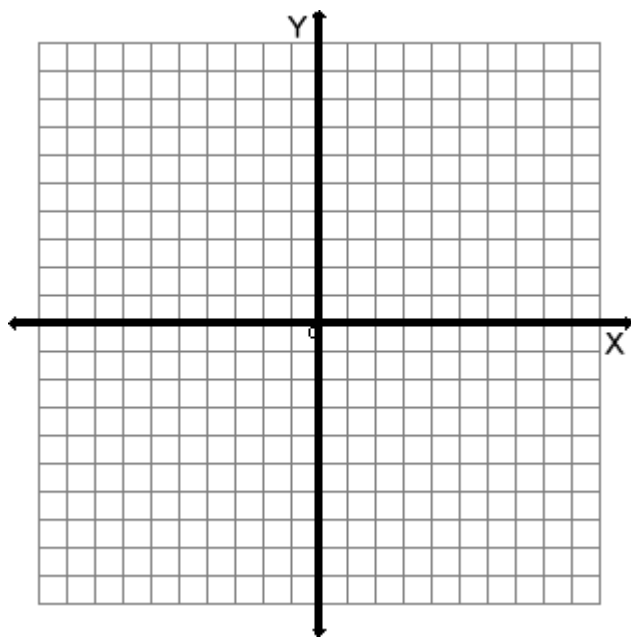


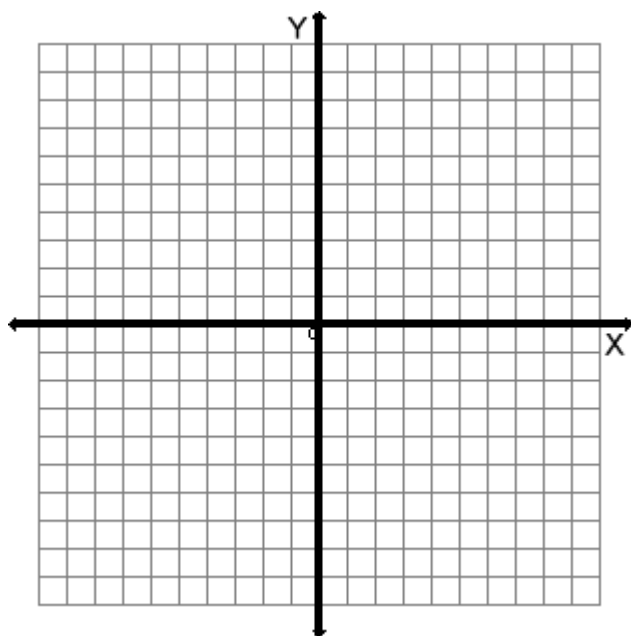
Conics and Logarithms – Review

Graph the following conic sections.

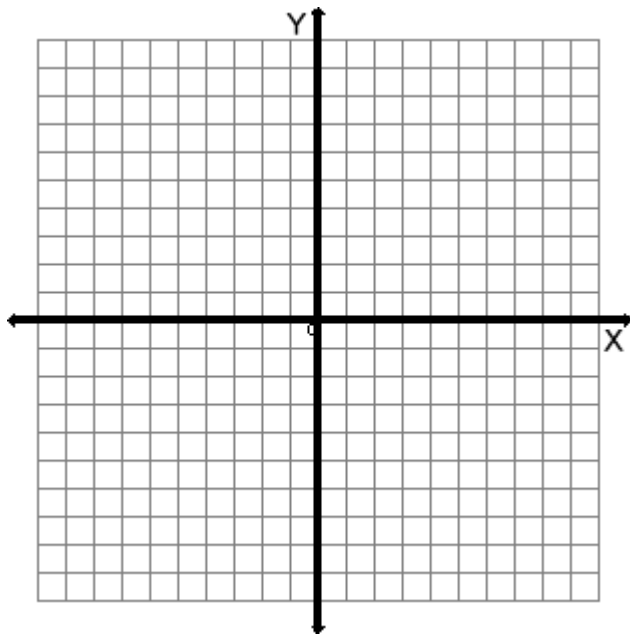
1) $\frac{(x - 1)^2}{36} + \frac{(y - 3)^2}{64} = 1$



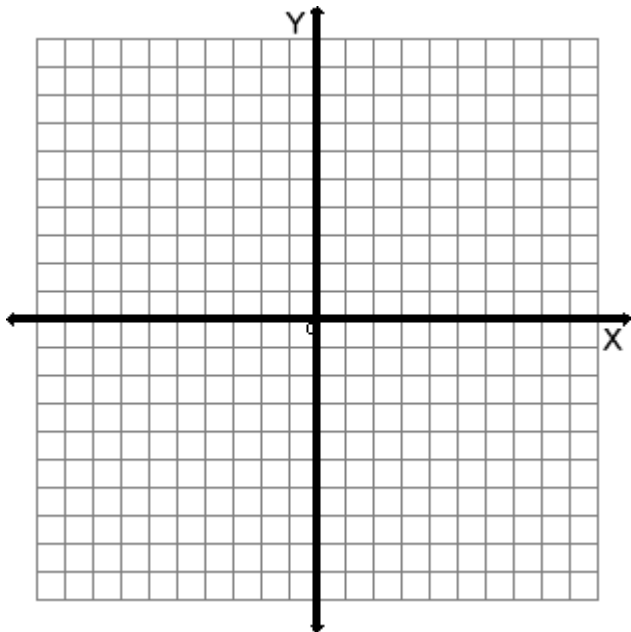
2) $\frac{(x + 2)^2}{25} + \frac{(y - 4)^2}{16} = 1$



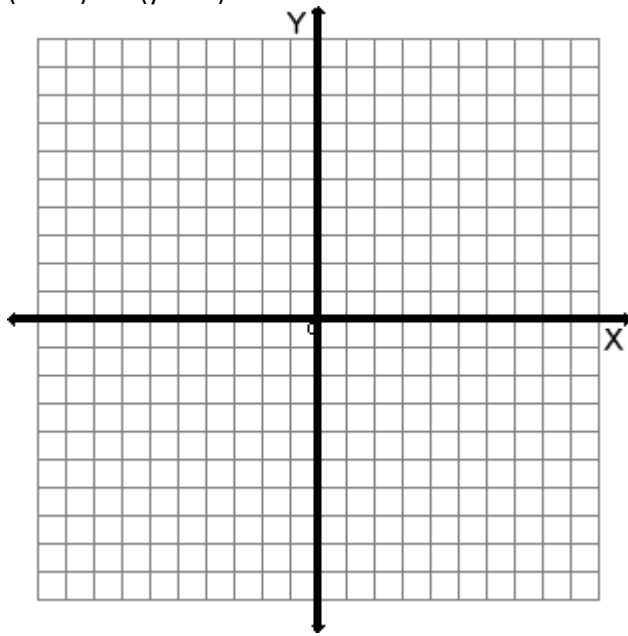
$$3) \quad \frac{(x + 5)^2}{25} - \frac{(y - 7)^2}{81} = 1$$



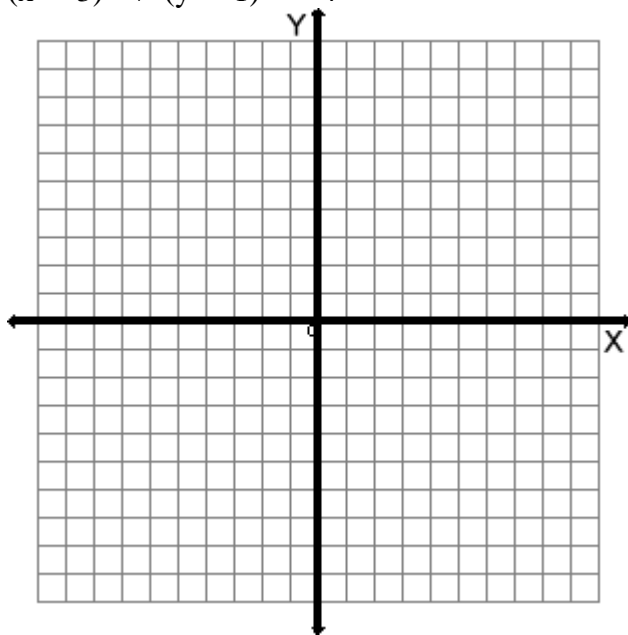
$$4) \quad \frac{(x + 6)^2}{36} - \frac{(y + 1)^2}{49} = 1$$



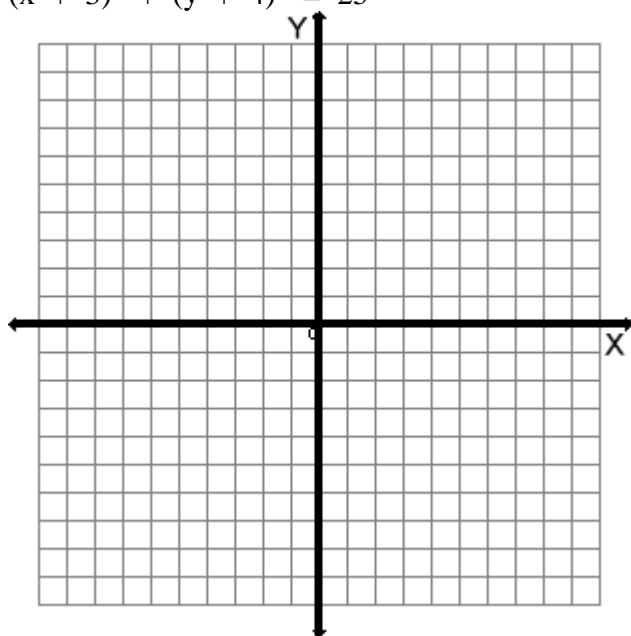
5) $(x - 1)^2 + (y + 4)^2 = 16$



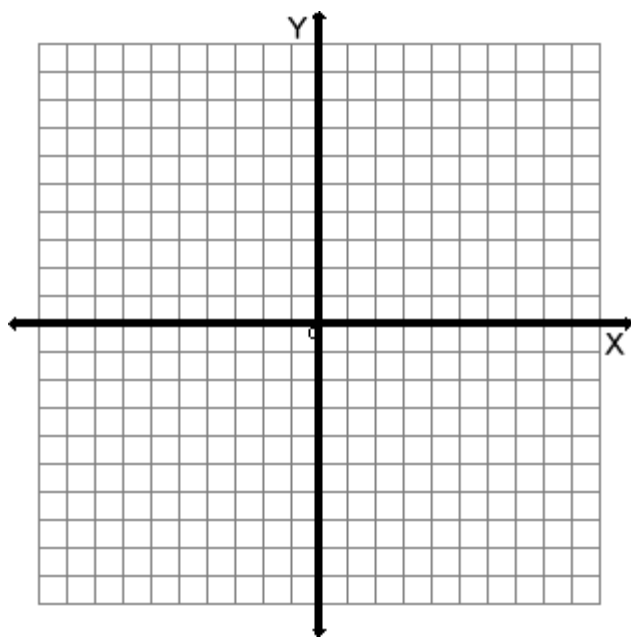
6) $(x - 3)^2 + (y - 1)^2 = 4$



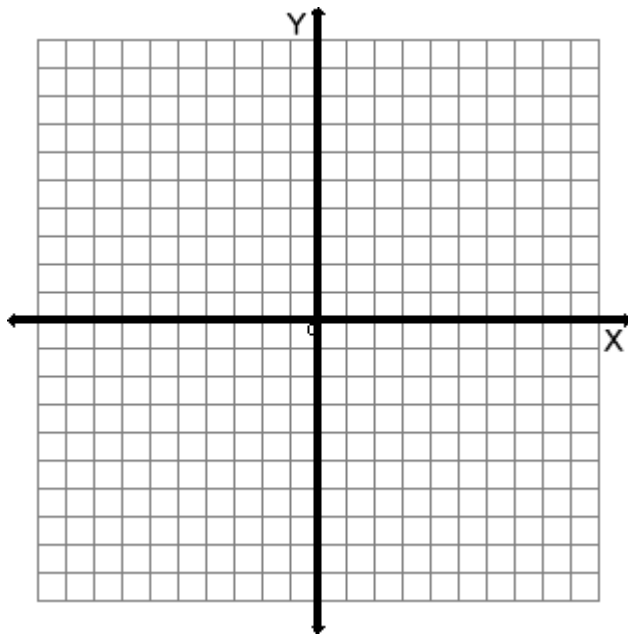
7) $(x + 3)^2 + (y + 4)^2 = 25$



8) $\frac{(y + 7)^2}{81} - \frac{(x + 4)^2}{9} = 1$



9) $\frac{x^2}{16} + \frac{y^2}{64} = 1$



Solve the following.

10) $\log_9 x = \frac{3}{2}$

$$11) \quad \log_{16} 4 - \log_4 (x + 953) = \frac{-9}{2}$$

$$12) \quad 4^{6x-9} = \frac{1}{64}$$

$$13) \quad 3^{x-2} = \frac{1}{243}$$

$$14) \quad 6^x = 140$$

$$15) \quad 23^x = 6481$$

$$16) \quad \log_4 64 + \log_{27} 9 + \log_{(1/2)} \left[\frac{1}{16} \right] - \log_4 (1017 + x) = \frac{8}{3}$$

$$17) \quad \log_8 \left[\frac{1}{64} \right] - \log_3 81 + \log_5 (x + 49) = -3$$

$$18) \quad \log_{(1/3)} 81 = x$$

19) $\log_{(1/2)} 16 + \log_{(1/3)} 9 = x$

20) $\log_5 x + \log_{(1/3)} 9 + \log_9 81 = -4$